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# Georgia Southern Explores the Effects of Neuroprotective Care

August 17, 2015



Infants born prematurely (< 37 of 40 completed weeks of gestation) are a significant perinatal health concern, contributing to substantial economic, social, and medical costs across the globe. We sought to explore the effects of neuroprotective care with use of weighted maternally-scented parental simulation device on 24–38 week gestation infants in a Level III NICU.

A sample of 45 infants was randomized into 1 of 4 groups. Infants in 2 of the groups were positioned with a weighted parental simulation device with and without maternal scent. Infants in a third group were placed in a soft nesting device with maternal scent, but without the weighted parental simulation device. Infants in the control group were given routine care without maternal scent or parental simulation device. Infants were observed and physiologic and behavioral data were recorded for a continuous 12-hour period of time.

Infants positioned with a weighted maternally-scented parental simulation device demonstrated significantly more self-regulatory behaviors and were less likely to experience episodes of apnea (HR = 9.828,  $p < 0.02$ ) and bradycardia (HR = 12.294,  $p < 0.006$ ). Neuroprotective supportive care using a weighted maternally-scented parental simulation device resulted in increased physiologic stability of premature and early term infants through the promotion of self-regulation seen by reduction of stressful behaviors, and decreased apnea, and bradycardia.

[“Effects of a Weighted Maternally-Scented Parental Simulation Device on Premature Infants in Neonatal Intensive Care,”](#) is published in *Newborn and Infant Nursing Reviews*.

Dr. Kendra Russell, Macon Graduate Center of the Georgia College and State University was lead author and Barbara Weaver, RN and Dr. Robert L. Vogel, department chair and professor of biostatistics at the Jiann-Ping Hsu College of Public Health Georgia Southern University were co-authors.

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